REMARKS

Presently, claims 1, 3, 6, 8, 10-13, 15, 25, 31, 32, 34, 36-37, and 41 are pending in the application. Claims 4, 9, 14, 29, 30, 33, 39, 43, and 44 are withdrawn from consideration without prejudice or disclaimer to the subject matter contained therein.

Prior Art Rejection – 35 U.S.C 103(a)

The Examiner has rejected claims 1, 3, 10-11, 13, 31-32, 34, and 41 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,529,550 to Tahara *et al.* ("Tahara") in view of U.S. Patent No. 6,351,474 to Robinette *et al.* ("Robinette") in further view of U.S. Patent No. 7,089,194 to Berstis et al. ("Berstis"). The Examiner contends that Tahara in view of Robinette in further view of Berstis teaches all elements of these claims. For the reasons stated below, Applicant respectfully traverses this rejection.

Descriptions of Tahara and Robinette may be found in the Amendment filed on May 17, 2007. Of note is that Tahara "dynamically" calculates a target bit rate. Thus, the target bit rate in Tahara does not include a profile that is pre-designated. Therefore, Tahara does not disclose an analysis of a video stream and the pre-designation of a bit rate profile from that stream for use in compressing a stream to be inserted into that stream. Furthermore, the calculated target bit rates in Tahara do not constitute a profile for a stream but instead are instantaneous target bit rates for all programs. Additionally, it is of note that the system in Robinette does not disclose a time-varying bit rate profile but rather a constant bit rate.

Berstis discloses a method and apparatus for adaptively targeting advertisements to a specific client computer. Berstis discloses the use of an "advertisement selector unit." The advertisement selector unit receives "session characterization information 428 containing information about a particular session or connection…" (column 7, lines 13-16). This session characterization information includes "the amount of available connection bandwidth for the session; the effective download speed of the client; the amount of connection time for the session" (column 7, lines 25-30).

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Independent claim 1 recites (with emphasis added):

> A method for inserting a digital media advertisement in a
> digital multiplexed stream, the method comprising:
>
> pre-designating a rate profile associated with a program
> stream, wherein the rate profile describes the available bits
> in respect to time and wherein the rate profile comprises a
> time varying profile from the start point to the end point of
> an adverting opportunity;
>
> compressing the digital media advertisement according to
> the pre-designated rate profile; and
>
> inserting the compressed digital media advertisement in the
> digital multiplexed stream at the advertising opportunity in
> the program stream.

A. The Combination Proposed by the Examiner Fails to Teach All Aspects of the Claims

As Applicant clearly established in the last response (Amendment, dated May 17,
2007), Tahara teaches a different type of rate profile than that which is recited in
independent claim 1. Tahara's rate profile characterizes bit rates at a single point in time
for a plurality of "target pictures." Therefore, Tahara's profile describes two variables:
(1) the target bit rate; and (2) the programming stream; both measured at a single point in
time. The plain language of independent claim 1 recites a "rate profile" for a single
programming stream and describes the available bandwidth over time. The profiles of
claim 1 and that of Tahara are clearly distinct.

Furthermore, Tahara's system is not easily converted from offering a dynamic bit
rate profile to a "rate profile" that describes "the available bits in respect to time" as
recited by independent claim 1. As Applicant has stressed in previous replies, Tahara
"dynamically" calculates the rate profile. The concept of "dynamic" calculation is in
direct conflict with the pre-designated rate profile of claim 1. Tahara processes each
group of pictures (GOP) as it arrives from the multiplexed transport stream. Therefore,

Tahara's calculations and profile are for the purpose of an instant in time for a GOP. They do not describe the available bits over time for a single programming stream.

According to the Examiner, Tahara lacks teachings or suggestions that "the rate profile describes the available bits in respect to time," and "the rate profile comprises a time varying profile from the start point to the end point of an adverting opportunity" (Final Office Action, page 3). Therefore, the contributing references must provide a teaching or suggestion of modifying a dynamically calculated rate profile describing a moment in time, to one that is pre-determined and describes a continuity of time. However, the combination proposed by the Examiner is not a simple addition of an element or replacement of an existing element, but instead a dramatic reconstruction of an element.

The Examiner asserts that the proposed references contain terms that appear similar to the language of claim 1. However, this does not mean that claim 1 is rendered obvious by the combination. Although Tahara describes a "bit rate profile," Tahara's profile is substantially different than the claimed rate profile, in that it is not in respect to time. Although Robinette contains disclosure of pre-designation and Berstis contains disclosure of "the amount of available connection bandwidth for the session", these references do not, when combined with Tahara provide a teaching of how to change Tahara's "bit rate profile" in order to achieve all aspects of claim 1. Claim 1 recites more than just a piecemeal combination of the words contained therein. The claimed rate profile is specific, in that "the rate profile describes the available bits in respect to time," and "the rate profile comprises a time varying profile from the start point to the end point of an adverting opportunity." In the abstract, something termed a "rate profile" cannot be considered to be the rate profile of claim 1, unless it meets the above described characteristics.

Tahara discloses "a bit rate profile" but this profile cannot be converted to one that is "time varying" by the addition of Berstis' teaching of providing "the amount of available connection bandwidth for the session." By "available connection bandwidth" Berstis does not mean that a "rate profile" as recited in claim 1 is used. Instead the

"available connection bandwidth" in Berstis refers to a static, unchanging bandwidth that is estimated to be available for the length of the ad transmission. The addition of Berstis' teaching would supplant Tahara's bit rate profile since this teaching is in such stark opposition to dynamic calculation of a bit rate profile. Berstis teaches providing "the amount of available connection bandwidth for the session" not modifying a bit rate profile for a single moment to be a bit rate profile for a continuum of moments.

Furthermore, since the rate profile of claim 1 is not taught by the combination Tahara, Robinette, and Berstis, the combination cannot then teach "compressing the digital media advertisement according to the pre-designated rate profile," as recited in claim 1. An entire advertisement cannot be compressed according to the target bit rates described by Tahara. Even if, as the Examiner argues, the collective target bit rates for a number of channels could be considered a rate profile, this rate profile is not used to compress a digital media advertisement as recited in claim 1. Instead, the target bit rates that the Examiner argues are a rate profile, at best, are the target bit rates at an <u>instant</u> of all channels calculated. Therefore, the target bit rates are not a profile for compressing an advertisement, but instead are the target bit rate for <u>all channels at an instant</u>. Neither Robinette, Berstis, nor the combination teaches a <u>time varying rate profile</u>, and therefore cannot teach compressing an advertisement according to that profile. Therefore all aspects of independent claim 1 are not taught by the combination proposed by the Examiner.

B. There Is No Motivation to Combine the References

Applicant respectfully submits that the Examiner has provided a non-sensical reasoning for the combination of Tahara, Robinett, and Berstis. There is not "a reason that would have prompted a person of ordinary skill in the relevant field to combine..." Tahara and Robinett. *KSR Int'l Co. v. Teleflex Inc. 127 S. Ct. 1727 (U.S. 2007).* The Examiner has stated that the motivation to combine is "to prevent underflow and overflow conditions." However, Tahara already contemplates underflow and overflow

conditions as described in column 27, lines 26-40. Since, Tahara already contemplates underflow and overflow conditions it is unclear why one skilled in the art would look beyond Tahara for an answer already provided therein. Therefore, the proposed combination does not make "common sense" *See KSR*.

Furthermore, Robinett teaches away from Tahara. As previously mentioned, Tahara teaches the dynamic calculation of target bit rates. Robinett teaches a static predetermined bit rate. The teaching of a static predetermined bit rate is directly opposed to the use of a dynamically calculated target bit rate. Therefore, Robinett teaches away from Tahara.

Moreover, adding Berstis' teaching of transmitting the "available connection bandwidth" is in direct conflict with the teachings of Tahara. Since Tahara "dynamically" calculates a bit rate profile and Berstis disclose transmitting the "available connection bandwidth for the session" prior to the insertion of any portion of the advertisement, Berstis teaches away from Tahara. Therefore there is no motivation to combine Tahara and Berstis.

C. The Combination of the Secondary References With Tahara Changes the Mode of Operation of Tahara

The combination of Robinett with Tahara will also change the primary mode of operation of Tahara. Robinette teaches that "[e]ach program has a predetermined bit rate..." (column 6, line 21). Since Tahara focuses on dynamically calculating target bit rates, if the bit rates are predetermined as suggested by Robinette, Tahara will no longer function to dynamically calculate target bit rates. Therefore the proposed combination will change the mode of operation of Tahara. The teaching of "wherein the rate profile describes the available bandwidth overtime and comprises a time varying profile..." which the Examiner claims is provided by Berstis, cannot be combined with Tahara without changing the mode of operation of the primary reference and substantial redesign, since Tahara uses dynamic calculation and the system of Berstis require

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predetermining of "available bandwidth for the session" in order to provide this information before the insertion of an ad. As such, there are inherent problems with the proposed combination.

Additionally, Tahara's paradigm of operation also makes changing the profile created to one resembling the "rate profile" described in claim one an arduous task. This would require a substantial redesign of the system of Tahara and the references provided and the ability attributed to one skilled in the art would not render this redesign obvious. Furthermore, neither Tahara, Robinett, nor Berstis considers or enables how a "rate profile" that describes "the available bits in respect to time" would be determined. Therefore, the Examiner's proposed combination is improper and independent claim 1 is believed to be allowable.

Independent claims 10, 31, and 41, as amended, recite "predetermining a first bit rate profile for a first advertising opportunity, wherein the first bit rate profile describes the available bandwidth over time and wherein the first bit rate profile comprises a time varying profile from the start of the first advertising opportunity to the end of the first advertising opportunity;" "pre-defining an advertisement bit rate profile for an advertising opportunity in a digital program stream, wherein the digital program stream forms part of the statistically multiplexed digital stream, wherein the advertisement bit rate profile describes the available bandwidth over time and wherein the bit rate profile comprises a time varying profile from the start of the advertising opportunity to the end of the advertising opportunity;" and "a statistical multiplex unit capable of determining an available bandwidth of an advertising opportunity in a digital video program stream based on a pre-identified bandwidth profile, wherein the bandwidth profile describes the available bandwidth over time and wherein the bandwidth profile comprises a time varying profile from the start of the advertising opportunity to the end of the advertising opportunity;" respectively. For the same reasons discussed above with respect to independent claim 1, the proposed combination of Tahara, Robinette, and Berstis does not teach or suggest all elements of claim 10, 31, and 41. Therefore claims 10, 31, and 41 are believed to be patentable over the proposed combination.

Claims 3, 11, 13, 32, and 34 are allowable at least by their dependency on independent claims 1 and 31, respectively. Reconsideration and withdrawal of the Examiner's rejection of claims 1, 3, 10-11, 13, 31-32, 34, and 41 are respectfully requested.

The Examiner has rejected Claims 8, 15 and 36 under 35 U.S.C. 103(a) as being unpatentable over Tahara, in view of Robinette, in further view of Berstis, and in further view of U.S. Patent No. 6,208,688 to Seo *et al.* ("Seo"). Applicant respectfully traverses this rejection.

For the same reasons discussed above with respect to the Examiner's rejection of claims 1, 3, 10-11, 13, 31-32, 34, and 41, the combination of Tahara, Robinette, and Berstis does not teach or suggest all of the elements of independent claims 1, 10, and 31. Applicant respectfully submits that Seo does not teach or suggest the elements missing from the combination. Accordingly, independent claims 1, 10, and 31 are believed to be allowable over the combination of Tahara, Robinette, Berstis, and Seo. Dependent claims 8, 15, and 36 are allowable at least by their dependency on independent claims 1, 10, 31, respectively.

The Examiner has rejected claims 6, 25, and 37 under 35 U.S.C. 103(a) as being unpatentable over Tahara in view of Robinette, in further view of Berstis, and in further view of U.S. Patent No. 6,611,624 to Zhang et al. ("Zhang").

Independent claim 25 recites "an ad encoder/compressor capable of encoding and compressing a first advertisement and a second advertisement at a predetermined aggregate bit rate profile ... , wherein the first and second bit rate profiles describe the available bandwidth over time and wherein the first and second bit rate profiles comprise time varying profiles from the start of the first and second advertising opportunities to the end of the first and second advertising opportunities, respectively." The combination of Tahara, Robinette, Berstis, and Zhang fails to teach or suggest all features of independent claims 1, 25, and 31 for the reasons discussed above in regard to claim 1. Therefore, independent claims 1, 25, and 31 are believed to be allowable over the combination of

Tahara, Robinette, Berstis, and Zhang. Dependent claims 6 and 36 are allowable at least by their dependency on independent claims 1 and 31, respectively. Reconsideration and withdrawal of the Examiner's rejection of claims 6, 25, and 37 is respectfully, requested.

The Examiner has rejected claim 12 under 35 U.S.C. 103(a) as being unpatentable over Tahara in view of Robinette, in further view of Berstis, and in further view of U.S. Patent No. 6,049,526 to Radhakrishnan et al. ("Radhakrishnan"). The combination of Tahara, Robinette, Berstis, and Radhakrishnan fails to teach or suggest all features of independent claims 1, 10, 25, and 31 for the reasons discussed above in regard to claim 1. Therefore, independent claims 1, 25, 10, and 31 are believed to be allowable over the combination of Tahara, Robinette, Berstis, and Radhakrishnan. Dependent claim 12 is allowable at least by its dependency on independent claim 10. Reconsideration and withdrawal of the Examiner's rejection of claim 12 is respectfully, requested.

Conclusion

In view of the foregoing remarks, Applicant respectfully submits that the Examiner's objection and rejections have been overcome, and that the application, including claims 1, 3, 6, 8, 10-13, 15, 25, 31, 32, 34, 36-37, and 41 is in condition for allowance. Reconsideration and withdrawal of the Examiner's objection and rejections and an early Notice of Allowance are respectfully requested.

Respectfully submitted,

Date: _____10/26/07_____   By: _____

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